

RS Regulator

Construction and function of the RS Regulator

RS 250 and RS 251 are gas pressure regulators with built-in safety shutoff valve.

Nominal diameters 25, 50, 80, 100, 150, 200.

The gas flows through the regulator housing in arrow direction (cut-view). The main diaphragm is actuated via an impulse line from the outlet side by pressure. The required outlet pressure is adjusted at the spring. The single seat valve is directly mounted and operates independent from the inlet pressure by the compensation diaphragm.

The safety shutoff valve (SSV) which is built into the same housing interrupts the gas flow at excess pressure or gas shortage.

The diaphragm of the safety shutoff valve is actuated via an impulse line from the outlet side. When excess pressure or gas shortage lifts or drops the measure work the latch lever reacts and the closing spring presses the valve disc against the valve seat.



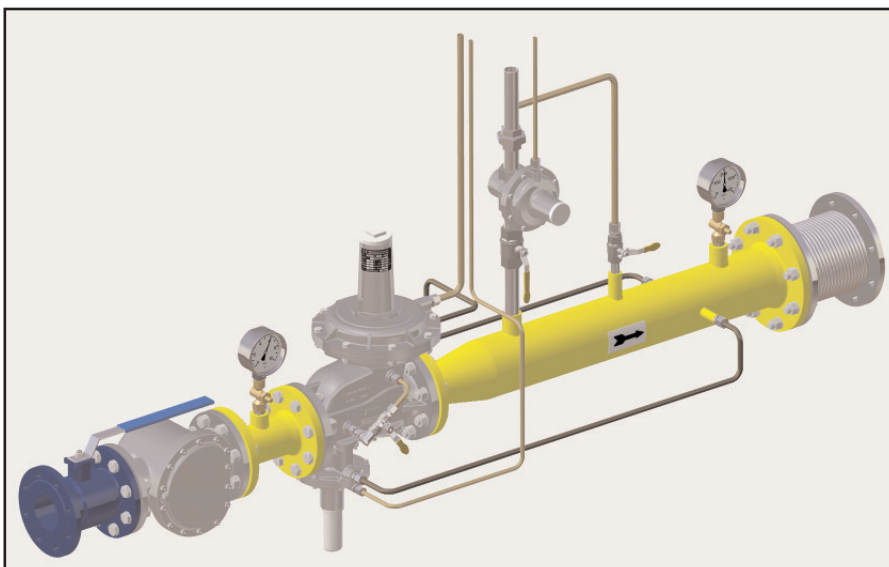
Wheel in use materials

Housing:	Silumin casting	DN 25 - 150
(special version:	casting GGG40)	DN 200
Diaphragm cap:	Silumin casting	
Internal parts:	stainless	
Diaphragms:	50 NBR	
valve discs:	50 NBR, vulcanized	

Connections

Flange PN 16 DIN 2533
Flange PN 10 DIN 2532

RS Regulator in a gas train

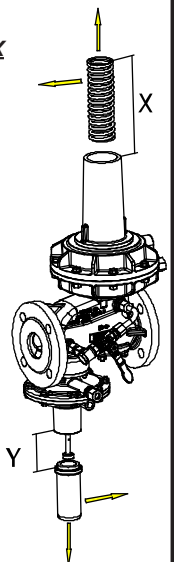


installation space - spring - X

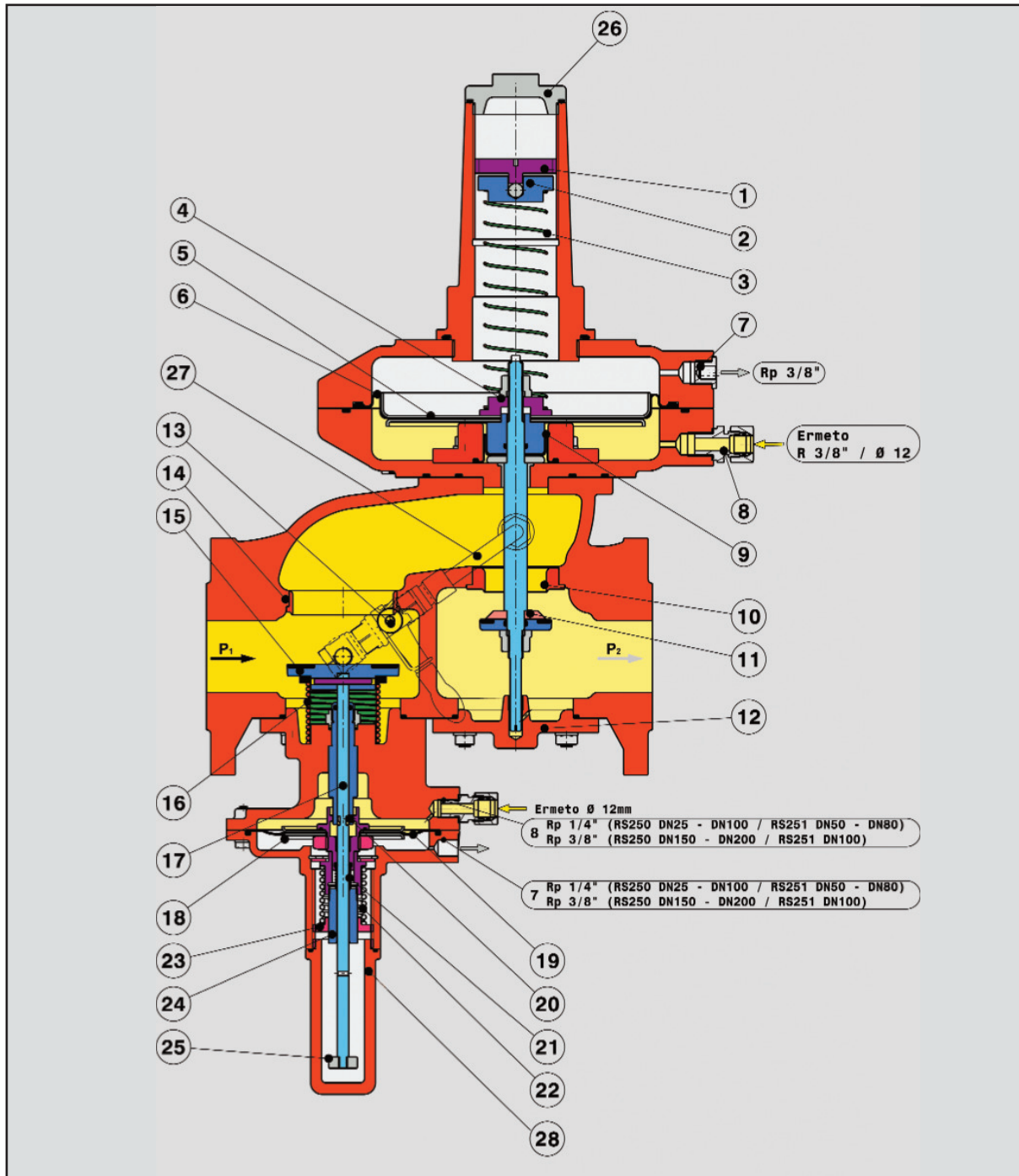
RS 250 DN 25-100	210mm
RS 250 DN 150/200	410mm
RS 251 DN 50	210mm
RS 251 DN 80/100	410mm

installation space - cap - Y

RS 250 DN 25-100	100mm
RS 250 DN 150/200	150mm
RS 251 DN 50/80	100mm
RS 251 DN 100	150mm

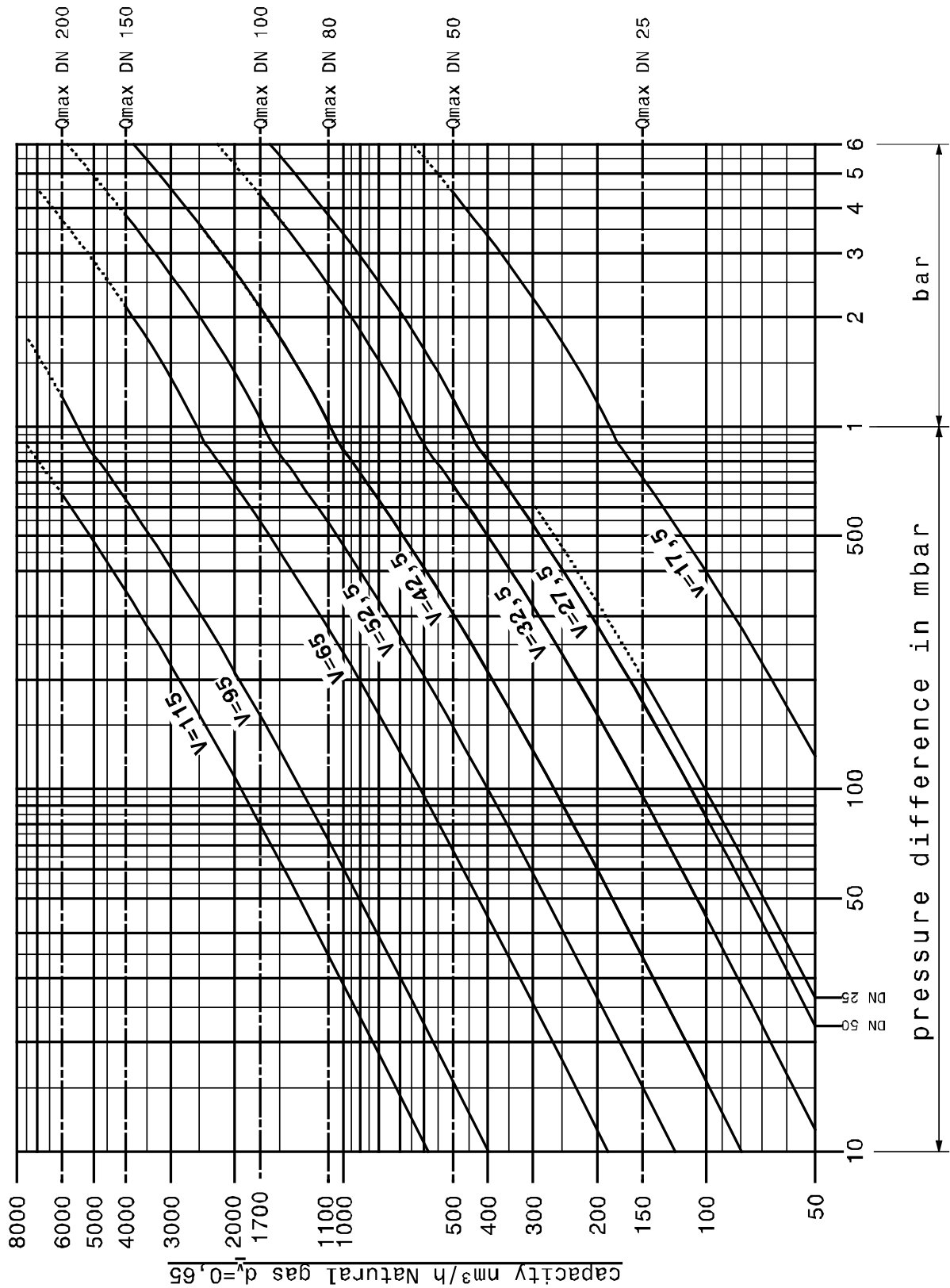


RS Regulator



- | | | | |
|----|---------------------------------|----|-------------------------|
| 1 | Pressure setting screw | 15 | SSV disc |
| 2 | Spring disc | 16 | SSV closing spring |
| 3 | Setting spring | 17 | SSV spindle |
| 4 | Feet disc | 18 | Diaphragm disc |
| 5 | Diaphragm disc | 19 | SSV diaphragm |
| 6 | Regulator main diaphragm | 20 | Bearing |
| 7 | Breathing connection | 21 | Minimum pressure spring |
| 8 | Impulse connection | 22 | Maximum pressure spring |
| 9 | Compensation diaphragm | 23 | Maximum setting screw |
| 10 | Regulator valve seat | 24 | Minimum setting screw |
| 11 | Valve disc/Control cone | 25 | Pull button |
| 12 | Cover plate | 26 | Cap |
| 13 | Valve for pressure compensation | 27 | SSV bypass |
| 14 | SSV valve seat | 28 | SSV cap |

RS 250



RS 250	
DN 025 -	17,5
DN 050 -	27,5
DN 080 -	32,5
DN 100 -	42,5
DN 150 -	52,5
DN 200 -	95
DN 250 -	115

RS 250 DN 25

$P_e = P_u$ max. 6 bar
 $P_a = P_d$ 22-1.200mbar
 Q max. 150 Nm³/h
 (300) Nm³/h

KG-Values

$V_{17,5}$ 170 Nm³/h
 $V_{27,5}$ 420 Nm³/h

Gas characteristics:

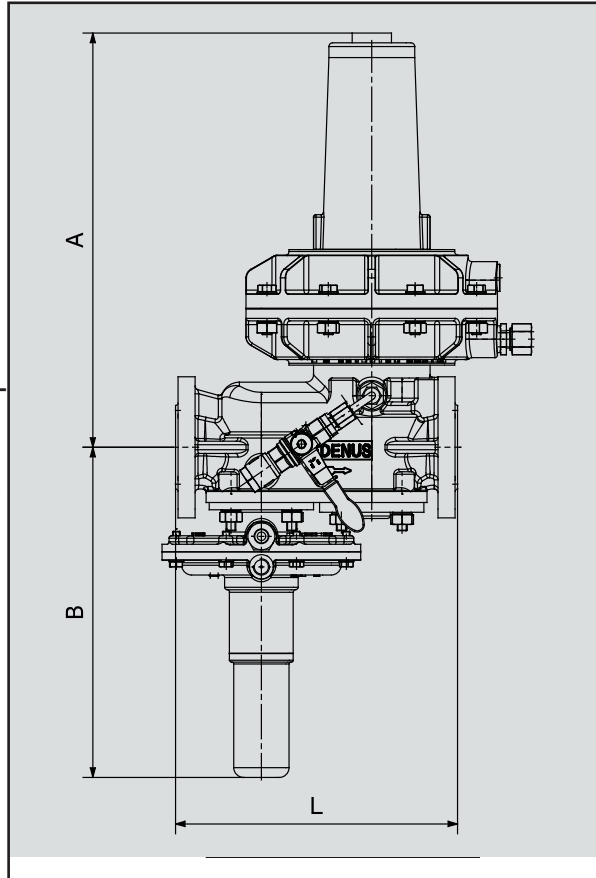
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

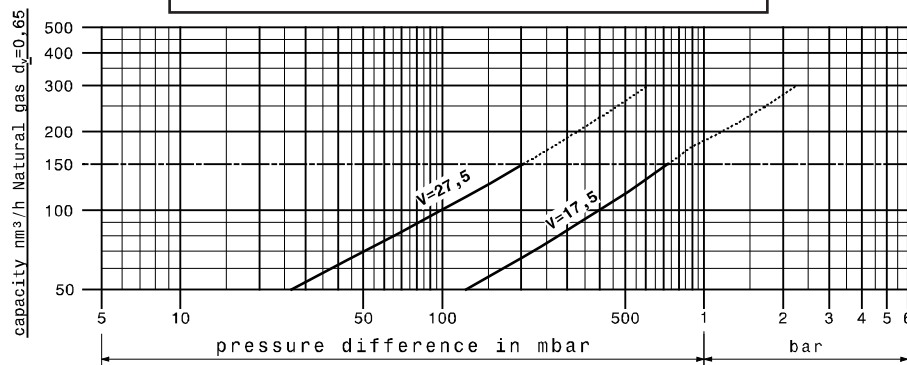
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



$P_d < 200$ mbar*

13,5kg

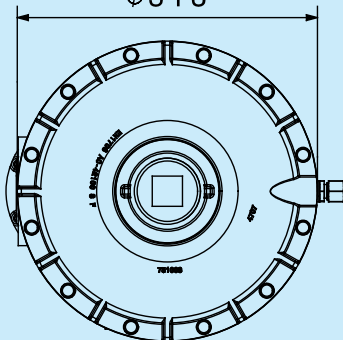
PN16

A=328mm

B=269mm

L=230mm

Ø 318



$P_d < 750$ mbar*

11,5kg

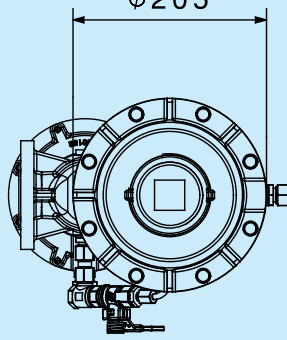
PN16

A=338mm

B=269mm

L=230mm

Ø 205



$P_d < 1.200$ mbar*

10kg

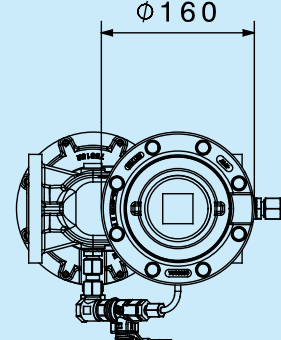
PN16

A=338mm

B=269mm

L=230mm

Ø 160



*for higher pressure high pressure shaft

RS 250 DN 50

$P_e = P_u$ max. 6 bar
 $P_a = P_d$ 22-1.200mbar
 Q max. 500 Nm³/h
 (750) Nm³/h

KG-Values

$V_{17,5}$ 186 Nm³/h
 $V_{27,5}$ 459 Nm³/h
 $V_{32,5}$ 642 Nm³/h

Gas characteristics:

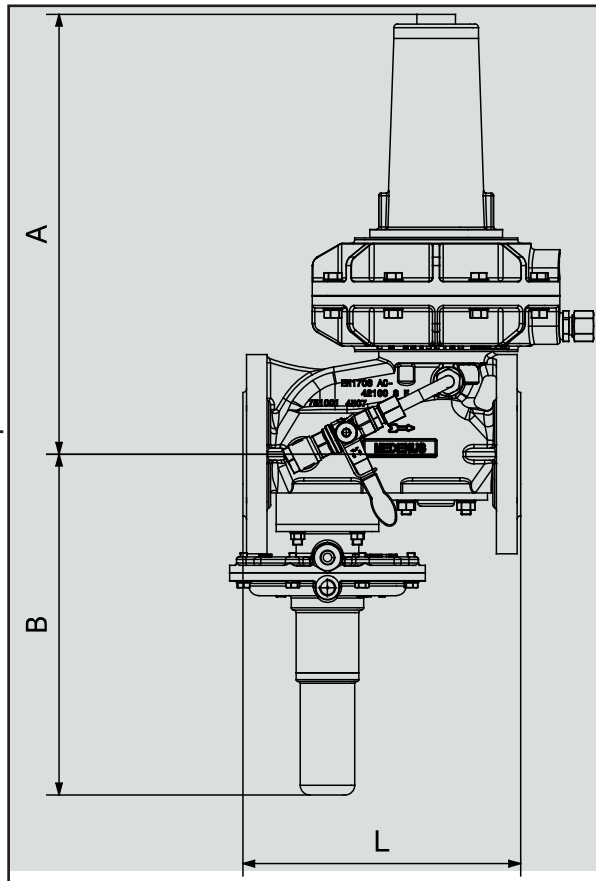
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

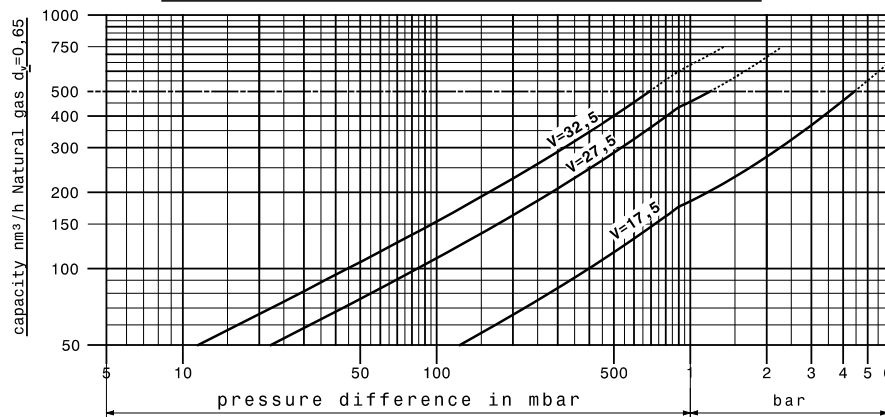
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



$P_d < 200$ mbar*

15kg

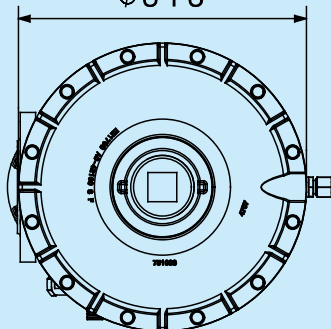
PN16

A=348mm

B=282mm

L=230mm

Ø 318



$P_d < 750$ mbar*

13kg

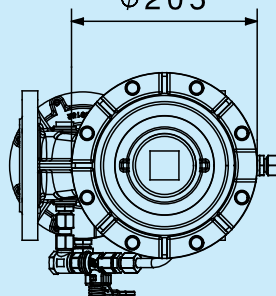
PN16

A=364mm

B=282mm

L=230mm

Ø 205



$P_d < 1.200$ mbar*

11,5kg

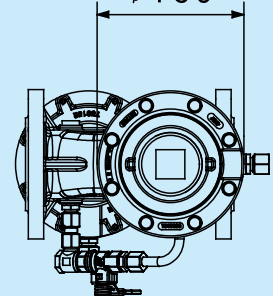
PN16

A=358mm

B=282mm

L=230mm

Ø 160



*for higher pressure high pressure shaft

RS 250 DN 80

Pe = Pu max. 6 bar
Pa = Pd 22-1.200mbar
Q max. 1.100 Nm³/h
 (2.000) Nm³/h

KG-Values

V 27,5 459 Nm³/h
V 32,5 642 Nm³/h
V 42,5 1.097 Nm³/h

Gas characteristics:

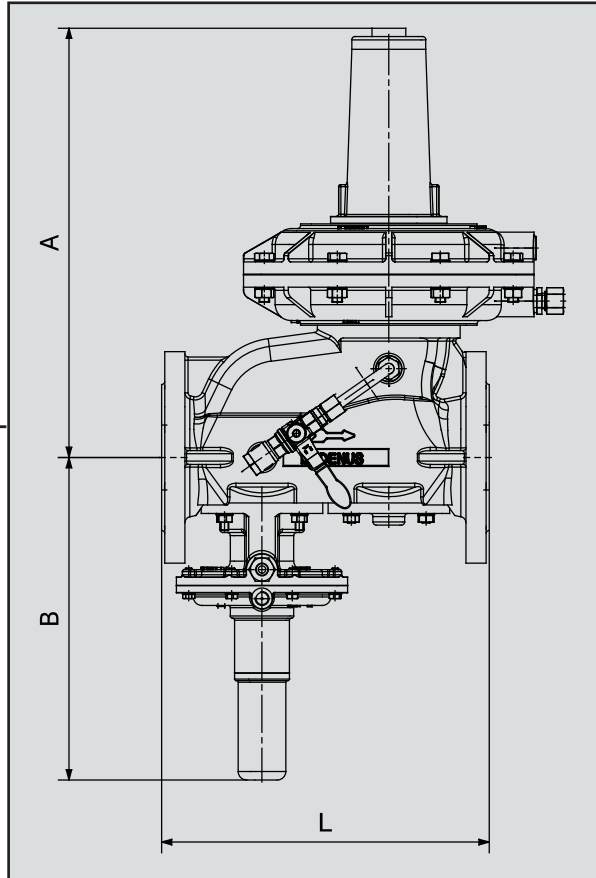
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

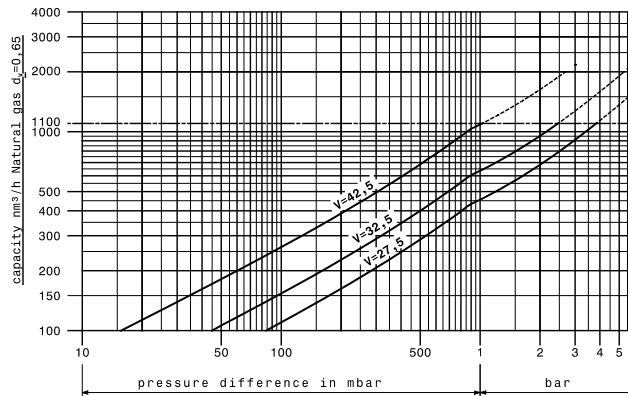
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



Pd < 130 mbar*	Pd < 400 mbar*	Pd < 1.200 mbar*
28kg	24kg	22kg
PN16	PN16	PN16
A=406mm	A=406mm	A=406mm
B=305mm	B=305mm	B=305mm
L=310mm	L=310mm	L=310mm
Ø 385	Ø 275	Ø 205

*for higher pressure high pressure shaft

RS 250 DN 100

$P_e = P_u$ max. 6 bar
 $P_a = P_d$ 22-1.200mbar
 Q max. 1.700 Nm³/h
 (2.500) Nm³/h

KG-Values

$V_{27,5}$ 459 Nm³/h
 $V_{32,5}$ 642 Nm³/h
 $V_{42,5}$ 1.097 Nm³/h
 $V_{52,5}$ 1.674 Nm³/h

Gas characteristics:

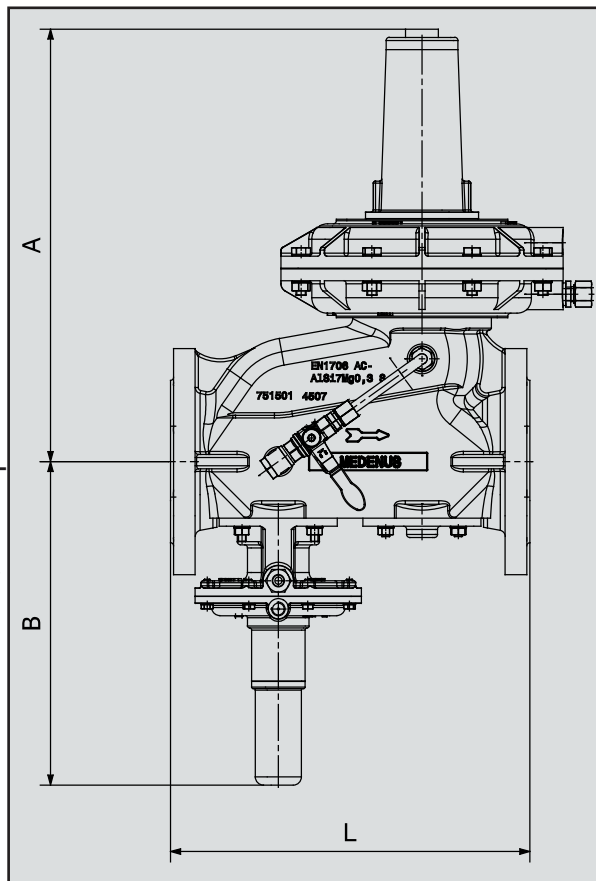
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

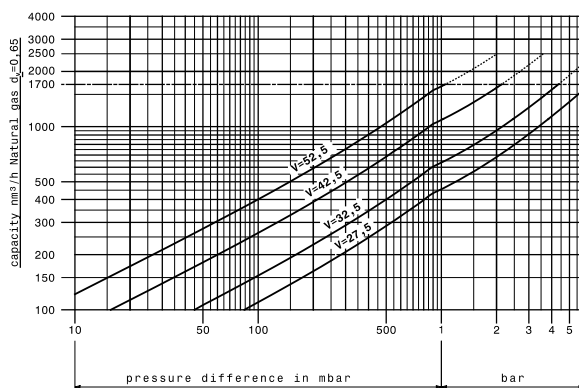
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



$P_d < 130$ mbar*

27kg

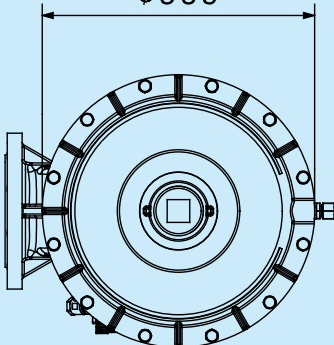
PN16

A=421mm

B=315mm

L=350mm

Ø385



$P_d < 400$ mbar*

23kg

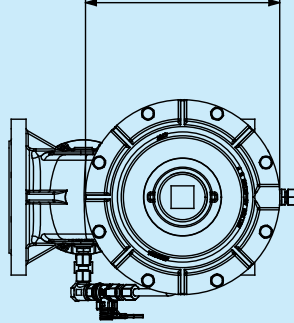
PN16

A=421mm

B=315mm

L=350mm

Ø275



$P_d < 1.200$ mbar*

21kg

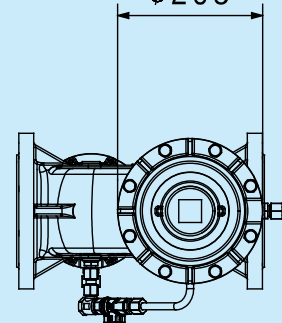
PN16

A=421mm

B=315mm

L=350mm

Ø205



*for higher pressure high pressure shaft

RS 250 DN 150

$P_e = P_u$ max. 6 bar
 $P_a = P_d$ 22-1.200mbar
 Q max. 4.000 Nm³/h
 (7.000) Nm³/h

KG-Values

V 42,5 1.097 Nm³/h
V 52,5 1.674 Nm³/h
V 65 2.566 Nm³/h
V 85 4.389 Nm³/h
V 95 5.482 Nm³/h

Gas characteristics:

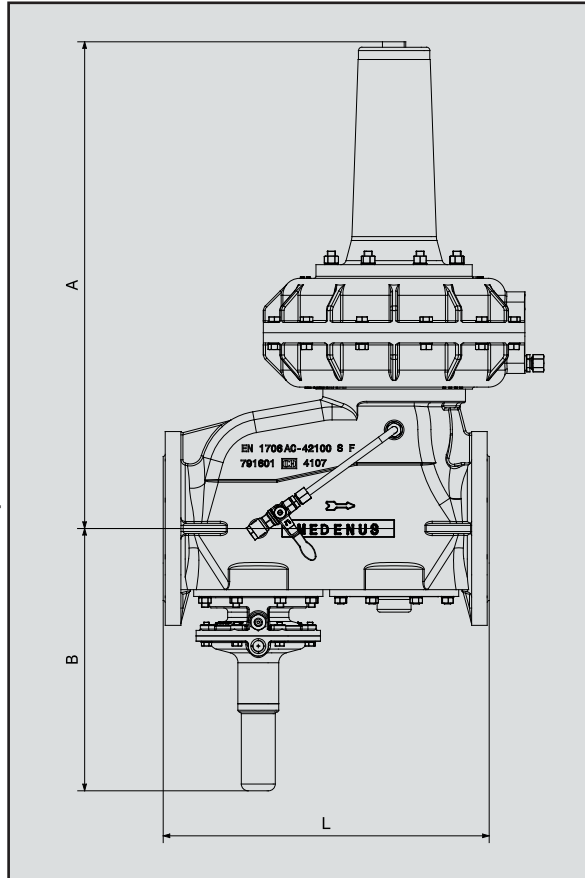
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

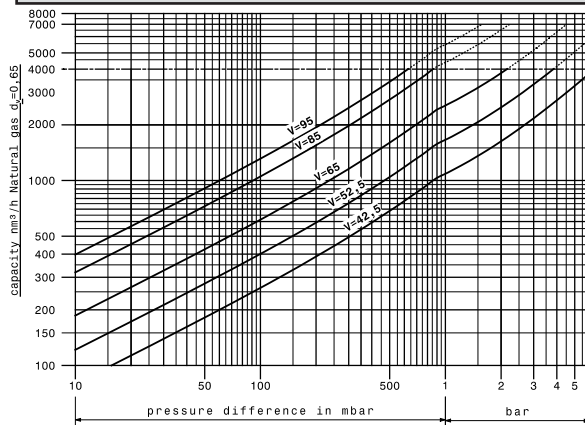
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

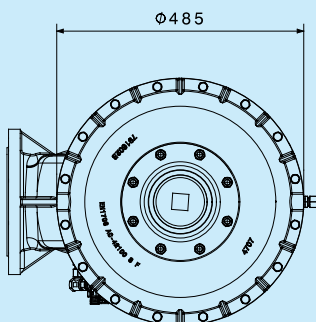
SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



$P_d < 150$ mbar*

65kg
PN16

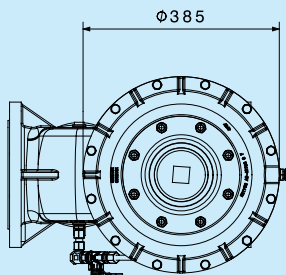
A=716mm
B=386mm
L=480mm



$P_d < 350$ mbar*

59kg
PN16

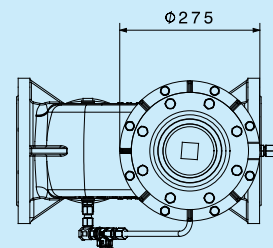
A=716mm
B=386mm
L=480mm



$P_d < 1.200$ mbar*

52kg
PN16

A=730mm
B=386mm
L=480mm



*for higher pressure high pressure shaft

RS 250 DN 200

$P_e = P_u$ max. 4 bar
 $P_a = P_d$ 22-1.200mbar
 Q max. 6.000 Nm³/h
 (7.500) Nm³/h

KG-Values

V 95 5.482 Nm³/h
V 115 8.033 Nm³/h

Gas characteristics:

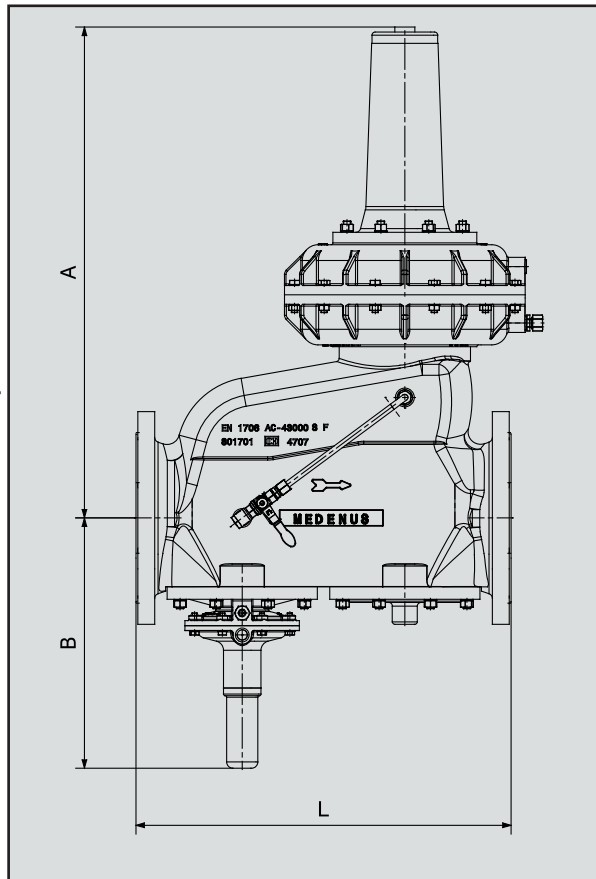
suitable for gas of the gas families 1, 2, 3 and other neutral gaseous media.

Ambient-temperature -20...+60°C

Fitting position any

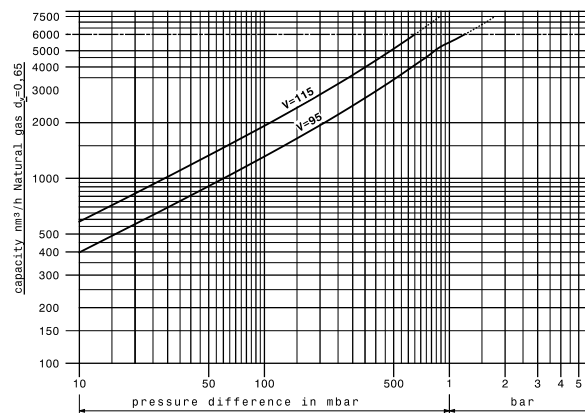
Flow speed 30m/s
 (limit 60m/s)

SSV max. 1.500mbar



Special design:

SSV-seat stainless steel
 contact switch SSV
 high pressure shaft



bis 150 mbar*	bis 350 mbar*	bis 1.200 mbar*
92kg	84kg	80kg
PN10	PN10	PN10
A=784,5mm	A=784,5mm	A=798,5mm
B=400mm	B=400mm	B=400mm
L=600mm	L=600mm	L=600mm
Ø 485	Ø 385	Ø 275

*for higher pressure high pressure shaft